

Fig. 1 is a drawing showing the pathway of caffeine biosynthesis ;

Fig. 2 is a drawing showing base sequences of cDNAs obtained from MTL1, MTL2, MTL3 and MXMT1. Fig. 2A shows the base sequence of cDNA obtained on clone #1 (SEQ ID NO: 4). Fig. 2B shows the base sequence of cDNA obtained on clone #6 (SEQ ID NO: 6). Fig. 2C shows the base sequence of cDNA obtained on clone #35 (SEQ ID NO: 8). Fig. 2D shows the base sequence of cDNA obtained on clone #45 (SEQ ID NO: 2);

Fig. 3 is a drawing showing alignment of amino acid sequences obtained from MXMT1 (SEQ ID NO: 2), MTL1 (SEQ ID NO: 4), MTL2 (SEQ ID NO: 6) and MTL3 (SEQ ID NO: 8);

Fig. 4 is a photograph showing the results of SDS-PAGE analyses performed on fusion proteins obtained from MTL2, MTL3 and MXMT1;

Fig. 5 is a photograph showing the results of TLC to analyze enzymatic activities of the fusion proteins obtained from MTL2, MTL3 and MXMT1; and

Fig. 6A-6E shows results of HPLC performed to identify reaction products in the enzymatic reaction mixture of the fusion protein obtained from MXMT1 identified by HPLC.

IN THE CLAIMS:

Please cancel Claims 16, 17, 28-31, and 34, without prejudice or disclaimer.